

Abstract

The invention relates to a method for the computer-supported generation of prognoses for operative systems (37), in particular for control processes and similar, based on multi-dimensional data sets describing a system, product and/or process condition, using the SOM method in which an ordered grid of nodes (1), representing the data distribution is determined and an internal scaling (σ_j) of variables (x_j) with regard to non-linearity in the data, based on the non-linear influence of each variable on the prognosis variable, is carried out. Local receptive regions corresponding to the nodes (1) are determined, on the basis of which local linear regressions are calculated. Using the number of local prognosis models obtained thus, optimized prognosis values for the control of the operative system (37) are calculated, whereby for each new data set the relevant sufficient nodes are determined and the local prognosis model applied to this data set.

(Fig. 3)

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